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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,113	02/26/2002	Shoichi Hirota	500.41256X00	3518
20457	7590	09/13/2006	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			NGUYEN, DUNG T	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,113

Applicant(s)

HIROTA ET AL.

Examiner

Dung Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16,18-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Applicants' amendment dated 06/22/2006 has been received and entered. By the amendment, claims 1, 3-16, 18-37 and newly added claim 38 are now pending in the application.

Applicant's arguments with respect to claims 1 and 16 have been considered but are moot in view of the new ground(s) of rejections as follow.

Claim Objections

1. Claim 32 is objected to because of the following informalities: the dependency of the claim 32 is incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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2. Claims 1, 3, 14-16, 18 and 32-38 are rejected under 35 U.S.C 102(e) as being anticipated by Hattori et al., US Patent No. 6,464,360.

The above claims are anticipated by Hattori et al. figures 1, 10 and accompanying text which discloses a projection type display apparatus with reflective liquid crystal light-valve wherein a projection light beam is incident upon and emergent from the liquid crystal layer as claimed (light source 100, a color separation optical system 11/17/200, homogeneous liquid crystal light valves 13/40, projection lens 18/50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 19, 13 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al., US Patent No. 6,464,360.

Regarding the above claims, Hattori et al. disclose the claimed invention as described above except for the homeotropic liquid crystal light valve (i.e., liquid crystal molecules mainly paralleled to the liquid crystal light valve substrate). It would have been an obvious to one having ordinary skill in the art at the time the invention was made to employ a homeotropic liquid crystal light valve since the examiner takes Office Notice of the equivalence of the homogenous liquid crystal light valve and the homeotropic liquid crystal light valve for their use

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in the projection type liquid crystal device art and the selection of any of these known equivalents for light modulating purposes would be within the level of ordinary skill in the art.

5. Claims 5-8 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al., US Patent No. 6,464,360, in view of Kitagishi, JP 07-318861.

Regarding the above claims, Hattori et al. disclose the claimed invention as described above except for the incident light angle being greater/not less than reflection angle/Brewster angle from the substrate into the air. Kitagishi does disclose incident light is approximately the same as a Brewster angle for polarizing and light separating efficiency. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ the Hattori et al. projection display device having incident light angle being greater/not less than reflection angle/Brewster angle from the substrate into the air as shown by Kitagishi for polarizing and light separating efficiency.

6. Claims 9-12 and 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori et al., US Patent No. 6,464,360, in view of Ichikawa et al., US Patent No. 6,473,144.

Regarding the above claims, Hattori et al. disclose the claimed invention as described above except for a hologram element/diffraction grating. Ichikawa et al do disclose a hologram color filter having a holographic diffraction grating for a hologram that has both a dispersing and converging function or only a dispersing function (col. 3, ln 45-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ a hologram element in the Hattori et a. device as shown by Ichikawa et al. in order to obtain an excellent color reproduction and to prevent uneven color (col. 5, ln 5-8).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

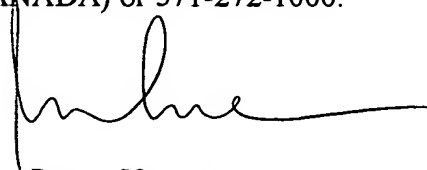
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
09/05/2006

A handwritten signature in black ink, appearing to read 'Dung Nguyen', with a long horizontal flourish extending to the right.

Dung Nguyen
Primary Examiner
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